甘肃、青海花尺蛾亚科新种记述*

（鳞翅目：尺蛾科）

薛 大 勇
（中国科学院动物研究所　北京　100080）

孟　　锋
（甘肃省永登县连城实验林场　730333）

本文记述采自青海东北部至甘肃境内祁连山地区的三个花尺蛾亚科新种，模式标本保存在中国科学院动物研究所。

1. 邻库尺蛾 *Kuldscha vicinalis* 新种(图版 I:1,2)

前翅长：♂ ♀ 17mm。♂触角栉齿长约为触角干直径的 4—5 倍；♀触角亦为双栉形，栉齿极短。头灰白色，下唇须背面黑褐色，额中部掺杂大量黑褐色，额上缘有 1 条黑褐色横线。体背和翅浅灰褐色，中胸前端有 1 条黑褐色横线，向两侧扩展至前翅前缘基部。各腹节后缘有 1 条深褐至黑褐色横线。前翅斑纹极近似波库尺蛾 *Kuldscha fluctuata* Xue，但亚基线内侧和中带内色较深，大部为深灰褐色；♂中带两侧散布不均匀的黑褐色，几乎不形成清晰的线纹，中带内有 2 条深灰褐色细线，两线之间色较浅；♀中带两侧各有 2—3 条深灰褐至黑褐色细线，中带内的 2 条细线色较深，在 Cu_2 处断离，Cu_2 上下两部分的 2 条线各自接合形成迴纹。后翅颜色远较波库尺蛾深；中点深灰色，微小；外线清晰，深灰至黑灰色，不规则波曲，♀外线外侧有 1 条与外线近似的亚缘线；翅端部散布深灰至深灰褐色，缘线在 M_3 以下黑色。翅反面同波库尺蛾，但颜色较深。

雄性外生殖器(图 2)：非常近似波库尺蛾(图 1)。整体略大；钩形突尖细；阳端基环形成的骨片形状不同，其中部连接，不分裂为 2 片，囊形突狭小。抱器端略延伸；抱器瓣中部脊状骨化带末端延伸出 1 支指状小突；抱器瓣端部的头状抱器内突距离抱器端较近。

雌性外生殖器 (图 3)：前表皮突短粗，后表皮突细长。前阴片骨化成 1 对发达骨片，其两侧有 1 对宽大骨片。囊导管几乎完全骨化形成细长骨环。囊体袋状，中上部有 1 片由微刺组成的囊片。

正模♂，配模♀，甘肃永登吐鲁沟 2280m，1991. VII. 25—29，薛大勇采。副模 1♀，同前，1989. VIII. 2，孟锋采；1♂，青海同仁麦秀 2950m，1992. VII. 30—VIII. 1，薛大勇采。

分布：甘肃、青海。

---

* 国家自然科学基金资助项目。
本文于 1991 年 10 月收到。

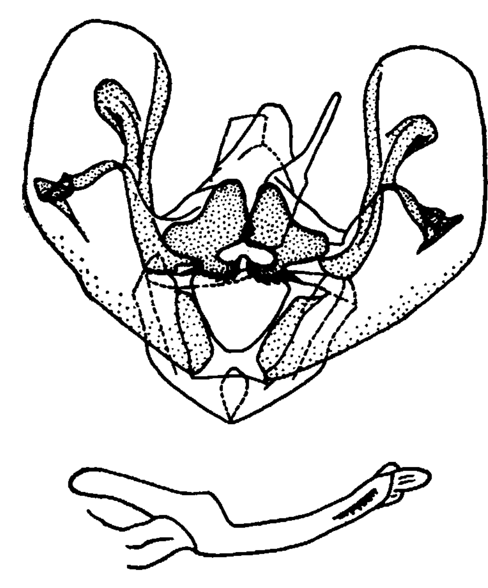


图 1　波库尺蛾 *Kuldscha fluctuata* Xue
♂外生殖器

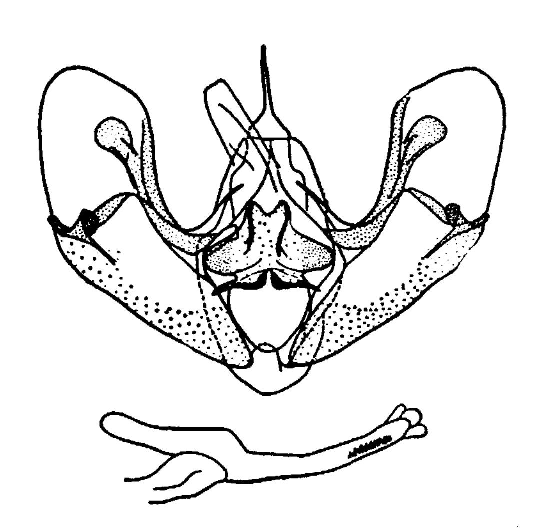


图 2　邻库尺蛾 *Kuldscha vicinalis* sp. nov.
♂外生殖器

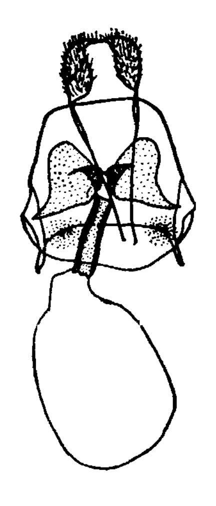


图 3　邻库尺蛾 *Kuldscha vicinalis* sp. nov.
♀外生殖器

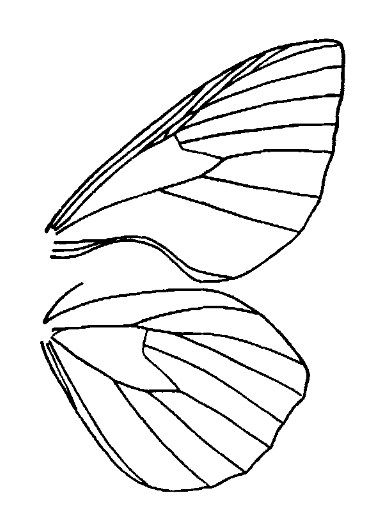


图 4　怪幅尺蛾 *Photoscotosia portentosaria* sp. nov.
♂翅型和翅脉

2. 怪幅尺蛾 *Photoscotosia portentosaria* 新种(图版 I: 3,4)

前翅长：♂21mm，♀21—23mm。头和胸背黑褐色，掺杂黄鳞；领片黄色；腹背深灰褐色与黄白色掺杂，各腹节背中线两侧排列黑褐斑。♂前翅后缘深凹，2A 脉强烈弯曲，臀角下垂，明显区别于本属其它已知种类；前翅反面毛束发达，Cu_2 基部两侧散布黑鳞；后翅极宽大，前缘强烈隆起(图 4)。♀前翅正常，后翅前缘近平直。新种斑纹特殊，前翅黑褐色中带两侧鲜明的白色细带和后翅端半部 2 列黑灰色云状纹在本属已知种类中均无相同或相似情况。前翅亚基线及其外侧邻近中带的细线和中带外侧的纤细体线黄白色；亚

基线白色清晰;顶角处 1 条白色斜线伸达亚缘线;翅端部各翅脉浅黄色;中点黑色椭圆形,周围有纤细白圈。后翅白色,基半部散布灰色;中点黑灰色,大而清晰,♂狭长,♀近圆形;各翅脉末端浅黄色。翅反面斑纹与正面相同;前翅基部和中带大部深灰色,中带外缘内侧有 1 条黑褐色模糊带,下端在臀褶处消失;后翅反面基半部灰色较少。

雄性外生殖器(图 5): 钩形突基部侧叶发达。阳端基环上端近菱形,末端及两侧角着生细毛;中部膨大呈锤状,下半部近圆形。抱器背骨化,但无宽大的耳状突,末端具钳状端突;抱器背下的毛束极发达。阳茎端膜着生 1 束细刺。

雌性外生殖器(图 6): 前阴片骨化形成 1 对狭长三角形骨片。袋状囊体上侧面有 1 片弱骨化区。囊片由微刺组成带状,短小细弱。

正模♂,配模♀,青海门源仙米 2800m,1991. VII. 31—VIII. 1,薛大勇采。副模 3♀,同前,1989. VIII.24,孟锋采;7♀,同前,1992. VII. 23—24,薛大勇采;1♀,青海同仁麦秀 2950m,1992. VII. 30—VIII. 1,薛大勇采。

分布: 青海。

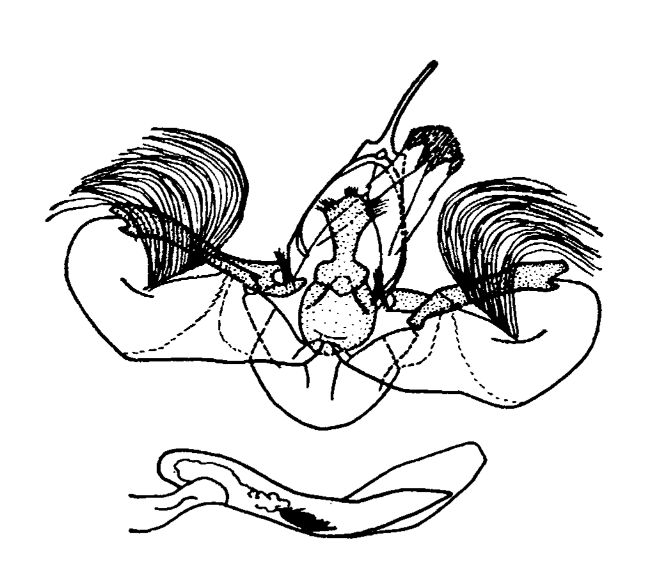


图 5 怪幅尺蛾 *Photoscotosia portentosaria* sp. nov.
♂外生殖器

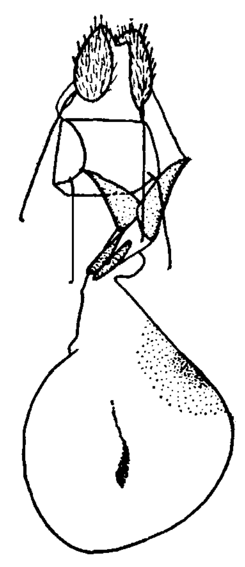


图 6 怪幅尺蛾 *Photoscotosia portentosaria* sp. nov.
♀外生殖器

3. 文后叶尺蛾 *Epilobophora mitis* 新种(图版 I:5)

前翅长: ♂16mm,♀15—16mm。头和体背线灰褐色;下唇须约 1/2 伸出额外。外观十分近似烟后叶尺蛾 *Epilobophora fumosaria* Xue,但前翅外缘倾斜较少,浅弧形弯曲;翅面颜色略灰,外线在前缘附近隐约可见,内线消失,具极微小深灰褐色中点,后缘的黑纹浅淡或消失。后翅白或灰白色,基部和顶角附近带灰或浅灰褐色,具微小深灰色中点。翅反面颜色同正面,后翅反面隐见微小中点和细弱外线。

雄性外生殖器(图 7): 钩形突粗壮,末端小钩状。阳端基环具 1 对镰状骨片。抱器瓣狭长,其中部及抱器背、抱器腹弱骨化。抱器背端部隆起,抱器腹端部分裂出 1 短钝小

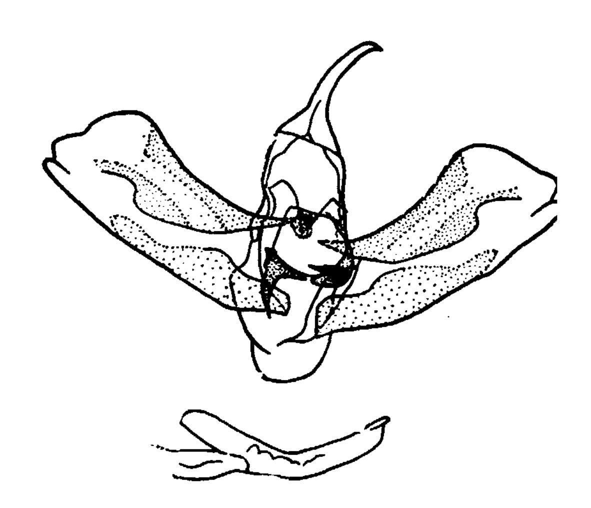


图 7　文后叶尺蛾 *Epilobophora mitis* sp.nov.
♂外生殖器

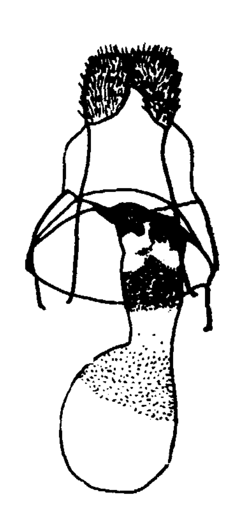


图 8　文后叶尺蛾 *Epilobophora mitis* sp.nov.
♀外生殖器

突。阳茎细小，无角状器。

雌性外生殖器(图 8)：近似垂角后叶尺蛾 *Epilobophora subangulata* Xue。前表皮突较长。前阴片形成 1 对小三角形骨片。囊导管短，上端具骨环，内面局部散布微刺。囊体椭圆形，上半部散布稀疏微刺。

正模♂，配模♀，副模 11♂ 3♀，青海同仁麦秀 2950m，1992. VII.30—VIII.1，薛大勇采。副模 2♂ 3♀，甘肃南，1981. VII. 29，采集者不详。

分布：甘肃、青海。

致谢　本文得到朱弘复教授关心指导，买国庆同志拍摄成虫照片，谨致谢忱。

参　考　文　献

1 Xue, Da-yong. A study on the Chinese *Photoscotosia* Warren (Lepidoptera:Geometridae:Larentiinae). *Sinozoologia* 1988,**6**:235—255.figs 1—15. pls 1—2.

2 Xue Da-yong. New species of *Kuldscha* Alphéraky and *Kyrtolitha* Staudinger from China (Lepidoptera, Geometridae, Larentiinae). *Sinozoologia*, 1991,**8**:359—366, figs 1—9, pl. 1.

3 Xue Da-yong. A study on the tribe Trichopterygini Warren of China (Lepidoptera, Geometridae, Larentiinae). *Sinozoologia*, 1992,**9**:267—296, figs 1—18, pls 1—2.

4 Xue Da-yong, The *Kuldscha* Alpheraky from China with a new species (Lepidoptera:Geometridae, Larentiinae). *Sinozoologia*, 1993,**10**:379—383, figs 1—5.

THREE NEW SPECIES OF LARENTIINAE FROM GANSU AND QINGHAI, CHINA (LEPIDOPTERA:GEOMETRIDAE)

Xue Dayong

(Institute of Zoology, Academia Sinica Beijing 100080)

Meng Feng

(Liancheng Forestry Centre, Yongdeng Gansu 730333)

Abstract This paper deals with three new species of Larentiinae, Geometridae from Mt. Qilian region, Qinghai and Gansu Province, China. All type specimens are kept in the Institute of Zoology, Academia Sinica.

1. *Kuldscha vicinalis* sp. nov. (pl.1:1,2)

Very closely related to *K. fluctuata* Xue from East Qinghai. ♂ antennal pectinations about 4—5 times length of the diameter of shaft. Smaller and darker. Forewing with the main lines similarly marked as in that species, median band dark greyish-brown, with two slender lines, which are from costa to hind margin directly in male, while interrupted at Cu_2 and connected with each other at both sides of Cu_2 in female. The part between two slender lines paler. Hindwing much darker than in that species, with a distinct posmedian line and, in female, a dark subterminal line.

Length of forewing: ♂ ♀ 17mm.

♂ genitalia (fig.2): Very similar to that of *K. fluctuata* Xue (fig.1). Somewhat broader. Uncus slenderer. The sclerotized plate of juxta differently shaped. Saccus narrower. The first ampulla on valva with a stick-like process on its end; the second ampulla somewhat outwardly placed.

♀ genitalia (fig.3): as illustrated.

Holotype ♂, Allotype ♀, Tulugou, Yongdeng, Gansu, 2280m, July 25—29, 1991, Xue Da-yong. Paratype 1♀, same as above, Aug. 2, 1989, Meng Feng; 1♂, Maixiu, Tongren, Qinghai, 2950m, July 30-Aug. 1,1992, Xue Da-yong.

Distribution:Gansu,Qinghai.

2. *Photoscotosia portentosaria* sp. nov. (pl.1:3,4)

Head and body blackish-brown to dark greyish-brown, mixed with yellow or yellowish-white. Forewing blackish-brown; subbasal line white; dark blackish median band with its edges deeply undulated, banded by a 1mm wide white band and a slender white line on each side; a distinct black cell dot on median band, white ringed; subterminal line white and undulated. Hindwing white, proximal half scattered with grey, blackish cell dot large, slender and long in male, rounded in female; terminal half of hindwing with two row of blackish spots and below M_1, a row of terminal speckes. Hind margin and vein 2A of forewing in male deeply incurved (fig.4); forewing beneath with a yellowish-white to pale greyish-brown hair pencil.

Length of forewing: ♂21mm, ♀21—23mm.

♂ genitalia (fig.5): as illustrated.

♀ genitalia (fig.6): as illustrated.

Holotype ♂, Allotype ♀, Sêmnyi, Menyuan, Qinghai, 2800m, July 31—Aug. 1,1991, Xue Da-yong. Paratypes 3♀, same as above, Aug. 24,1989, Meng Feng; 7♀, same as above, July 23—24,1992, Xue Da-yong; 1♀, Maixiu, Tongren, Qinghai, 2950m, July 30—Aug. 1,1992, Xue Da-yong.

Distribution:Qinghai.

3.*Epilobophora mitis* sp. nov. (pl.1:5)

Very close to *E. fumosaria* Xue from Yunnan and Gansu. Paler and smaller. Forewing with terminal margin less oblique; antemedian line disappeared; postmedian line very weakly expressed, ">" shaped, almost completely disappeared below M_3. Hindwing white, scattered with pale greyish-brown at base and terminal parts. Both wings with very minute cell dots.

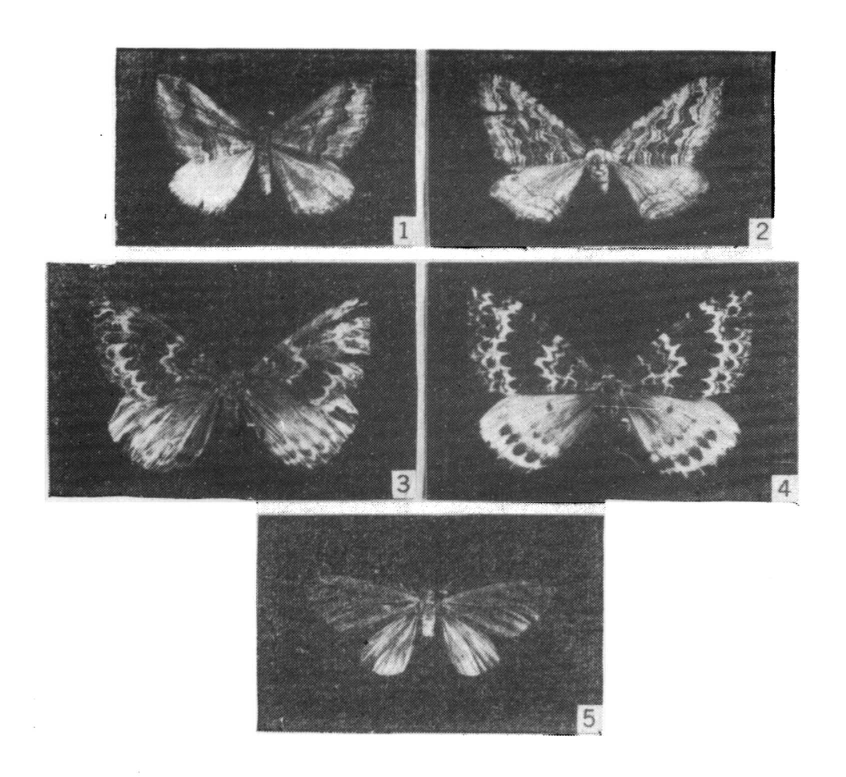
Length of forewing: ♂16mm, ♀15—16mm.

♂ genitalia (fig.7): as illustrated.

♀ genitalia (fig.8): as illustrated.

Holotype ♂, Allotype ♀, Paratypes 11♂ 3♀, Maixiu, Tongren, Qinghai, 2950m, July 30—Aug. 1,1992, Xue Da-yong. Paratypes 2♂ 3♀, Sunan, Gansu, Jul 29,1981, native collectors.

Distribution:Gansu,Qinghai.



1. 邻库尺蛾 *Kuldscha vicinalis* sp. nov. ♂ Holotype; 2. 同上 Ditto. ♀ Allotype; 3. 怪幅尺蛾 *Photoscotosia portentosaria* sp. nov. ♂ Holotype; 4. 同上 Ditto. ♀ Allotype; 5. 文后叶尺蛾 *Epilobophora mitis* sp. nov. ♀ Paratype.